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Feature Article - Analytical living cost indexes for selected Australian household types: update to June 2004

SUMMARY

This article updates the analytical living cost indexes for selected Australian households previously published in the AEI¹. These price indexes are designed specifically to measure the impact of changes in prices on the out-of-pocket living costs experienced by four categories of Australian households. The indexes now cover the period from June quarter 1998 up to and including the June quarter 2004.

The four household types for which these indexes have been constructed are: Employee households, Age pensioner households, Other government transfer recipient households, and Self-funded retiree households. Principal source of household income has been used to categorise household.

These indexes represent the conceptually preferred measures for assessing the impact of changes in prices on the disposable incomes of households. In other words, these indexes are particularly suited for assessing whether the disposable incomes of households have kept pace with price changes or not. The Australian Consumer Price Index (CPI), on the other hand, is designed specifically to measure price inflation for the household sector as a whole and, as such, is not the conceptually ideal measure for assessing the impact of price changes on the disposable incomes of households.

KEY RESULTS

Over the twelve months to June 2004, changes in living costs ranged from a low of 2.2% for Self-funded retiree households to a high of 3.3% for Employee households. The CPI rose by 2.5% over the same period. Over the six years to June 2004, the changes in living costs for all four household types are similar to the change in the CPI over the same period.

EXPENDITURE PATTERNS OF THE SELECTED HOUSEHOLD TYPES

Calculation of the aggregate impact of price changes on each of the household types involves weighting together the price movements recorded for individual goods and services. For each household type, the weight assigned to any particular good or service reflects the proportion of total household expenditure accounted for by expenditure on the item.

Table 1 shows per household average weekly expenditure during 1998-99 for each of the four household types, at June quarter 2000 prices. The commodity grouping used corresponds to the

commodity groups used for the current (14th series) CPI.

Table 1 illustrates significant differences in expenditures, both in total and at the individual commodity group level. Although differences in incomes are likely to be a major reason for this, other factors such as the demographic make-up of the households and dwelling tenure would also play a part. For example, Age pensioner households have on average the lowest number of persons per household and a higher than average rate of outright home ownership.

Table 2 presents the same data in expenditure share (or weight) form.

TABLE 1: ESTIMATED AVERAGE WEEKLY EXPENDITURE DURING 1998-99 BY COMMODITY GROUP AND HOUSEHOLD TYPE AT JUNE QUARTER 2000 PRICES(a)

Commodity group	Household type			
	Employee	Age pensioner	Other government transfer recipient	Self-funded retiree
AVERAGE WEEKLY EXPENDITURE PER HOUSEHOLD (\$)				
Food	155.16	71.68	92.31	96.53
Alcohol and tobacco	74.32	21.96	38.82	34.92
Clothing and footwear	46.91	14.04	17.83	23.62
Housing	96.29	49.37	88.27	61.00
Household furnishings, supplies and services	72.57	34.69	32.30	65.24
Health	38.56	22.01	11.51	50.39
Transportation	147.75	43.35	55.33	83.73
Communication	23.85	10.20	18.44	14.36
Recreation	108.80	35.13	42.71	94.89
Education	22.61	0.30	9.08	0.95
Miscellaneous(b)	114.16	23.45	36.74	38.42
Total	900.97	326.18	443.34	564.05
Number of households ('000)	4,042.0	1,035.4	958.1	361.1
Persons/household (no)	2.94	1.55	2.67	1.58

(a) Based on 1998-99 Household Expenditure Survey (HES).

(b) Includes interest charges and general insurance.

TABLE 2 : EXPENDITURE WEIGHTS BY MAJOR COMMODITY GROUP AND HOUSEHOLD TYPE AT JUNE QUARTER 2000 PRICES

Commodity group	Household type			
	Employee	Age pensioner	Other government transfer recipient	Self-funded retiree
AVERAGE AGE OF TOTAL EXPENDITURE (%)				
Food	17.22	21.97	20.82	17.11
Alcohol and tobacco	8.25	6.73	8.75	6.19
Clothing and footwear	5.21	4.30	4.02	4.19
Housing(a)	10.69	15.14	19.92	10.81
Household furnishings, supplies and services	8.05	10.64	7.28	11.57
Health	4.28	6.75	2.60	8.93
Transportation	16.40	13.29	12.48	14.84
Communication	2.65	3.13	4.16	2.55

Recreation	12.08	10.77	9.63	16.82
Education	2.51	0.09	2.05	0.17
Miscellaneous(b)	12.67	7.19	8.29	6.81
Total	100.00	100.00	100.00	100.00

(a) House purchases are excluded.

(b) Includes interest charges and general insurance.

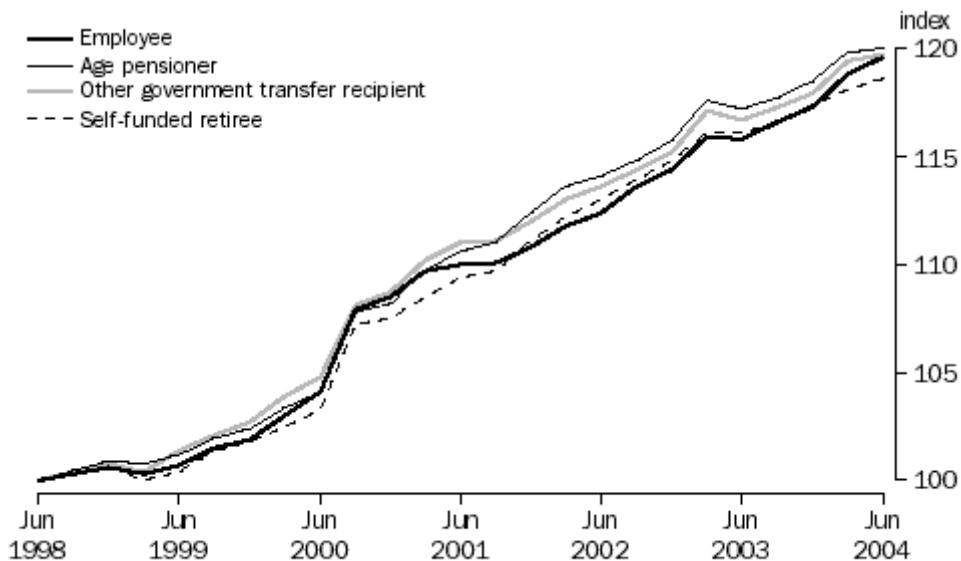
Figures may not add due to rounding.

There are some notable differences in the expenditure weights across the household types. For example the proportion of expenditure allocated to Food is highest for Age pensioner households, closely followed by Other government transfer recipient households. Employee households allocate a higher proportion of their expenditures to Transportation, Education and Miscellaneous (which includes interest charges) than the other household groups. Other government transfer recipients allocate higher proportions of their expenditures to Housing, Alcohol and tobacco and Communication than the other household types. Self-funded retiree households allocate higher proportions of their expenditures to Household furnishings, supplies and services, Health and Recreation than the other household types.

RESULTS

The index series for the various household types from June quarter 1998 to June quarter 2004 are shown in Chart 1 and quarterly percentage changes in the indexes in Chart 2. The data on which the charts are based are provided in Table 3.

**CHART 1: INDEX NUMBERS BY HOUSEHOLD TYPE,
June quarter 1998 =100.0**



**CHART 2: PERCENTAGE CHANGE,
(from previous quarter)**

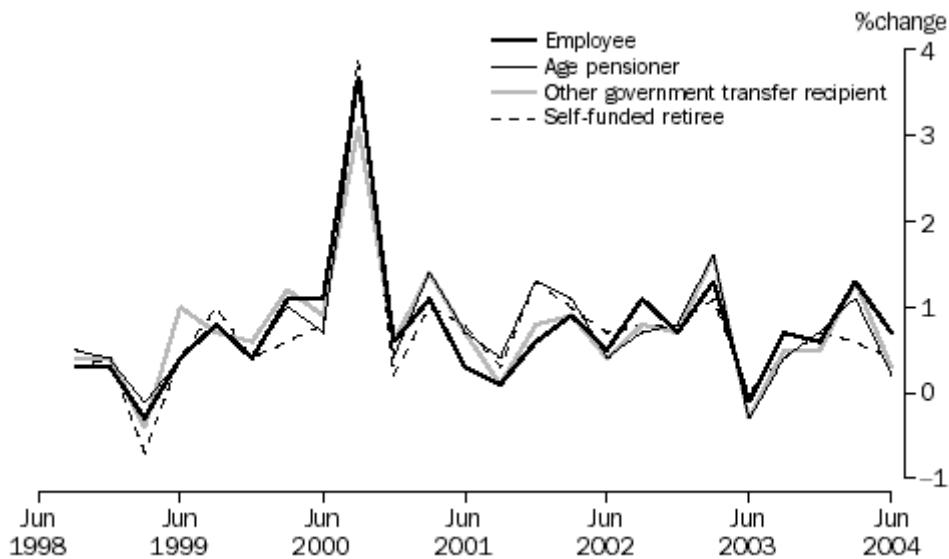


TABLE 3: LIVING COST INDEXES AND THE CPI

Quarter	Living Cost indexes (a)				CPI(b)	CPI(c)
	Employee	Age pensioner	Other government transfer recipient	Self-funded retiree		
INDEX NUMBERS						
June 1998	100.0	100.0	100.0	100.0	121.0	100.0
September 1998	100.3	100.5	100.4	100.3	121.3	100.2
December 1998	100.6	100.9	100.8	100.7	121.9	100.7
March 1999	100.3	100.8	100.9	100.0	121.8	100.7
June 1999	100.7	101.2	101.4	100.4	122.3	101.1
September 1999	101.5	102.0	102.1	101.4	123.4	102.0
December 1999	101.9	102.4	102.7	101.8	124.1	102.6
March 2000	103.0	103.4	103.9	102.4	125.2	103.5
June 2000	104.1	104.1	104.8	103.2	126.2	104.3
September 2000	107.9	107.8	108.1	107.2	130.9	108.2
December 2000	108.5	108.2	108.7	107.4	131.3	108.5
March 2001	109.7	109.7	110.2	108.5	132.7	109.7
June 2001	110.0	110.5	111.0	109.4	133.8	110.6
September 2001	110.2	110.9	111.1	109.7	134.2	110.9
December 2001	110.8	112.3	112.0	111.1	135.4	111.9
March 2002	111.8	113.5	113.0	112.2	136.6	112.9
June 2002	112.4	114.0	113.5	113.0	137.6	113.7
September 2002	113.6	114.8	114.4	113.9	138.5	114.5
December 2002	114.4	115.7	115.2	114.8	139.5	115.3
March 2003	115.9	117.6	117.1	116.1	141.3	116.8
June 2003	115.8	117.2	116.7	116.1	141.3	116.8
September 2003	116.6	117.7	117.3	116.6	142.1	117.4
December 2003	117.3	118.5	117.9	117.4	142.8	118.0
March 2004	118.8	119.8	119.4	118.1	144.1	119.1
June 2004	119.6	120.0	119.7	118.6	144.8	119.7
PERCENT CHANGE FROM PREVIOUS QUARTER						
September 1998	0.3	0.5	0.4	0.3	0.2	na
December 1998	0.3	0.4	0.4	0.4	0.5	
March 1999	-0.3	-0.1	0.1	-0.7	-0.1	na
June 1999	0.4	0.4	1.0	0.4	0.4	
September 1999	0.8	0.8	0.7	1.0	0.9	

December 1999	0.4	0.4	0.6	0.4	0.6	
March 2000	1.1	1.0	1.2	0.6	0.9	
June 2000	1.1	0.7	0.9	0.8	0.8	
September 2000	3.7	3.6	3.1	3.9	3.7	
December 2000	0.6	0.4	0.6	0.2	0.3	
March 2001	1.1	1.4	1.4	1.0	1.1	na
June 2001	0.3	0.7	0.7	0.8	0.8	
September 2001	0.2	0.4	0.1	0.3	0.3	
December 2001	0.5	1.3	0.8	1.3	0.9	
March 2002	0.9	1.1	0.9	1.0	0.9	na
June 2002	0.5	0.4	0.4	0.7	0.7	
September 2002	1.1	0.7	0.8	0.8	0.7	
December 2002	0.7	0.8	0.7	0.8	0.7	
March 2003	1.3	1.6	1.6	1.1	1.3	na
June 2003	-0.1	-0.3	-0.3	0.0	0.0	
September 2003	0.7	0.4	0.5	0.4	0.6	
December 2003	0.6	0.7	0.5	0.7	0.5	
March 2004	1.3	1.1	1.3	0.6	0.9	
June 2004	0.7	0.2	0.3	0.4	0.5	

PERCENT CHANGE FROM CORRESPONDING QUARTER OF PREVIOUS YEAR

June 1999	0.7	1.2	1.4	0.4	1.1	na
September 1999	1.2	1.5	1.7	1.1	1.7	
December 1999	1.3	1.5	1.9	1.1	1.8	
March 2000	2.7	2.6	3.0	2.4	2.8	na
June 2000	3.4	2.9	3.4	2.8	3.2	
September 2000	6.3	5.7	5.9	5.7	6.1	
December 2000	6.5	5.7	5.8	5.5	5.8	
March 2001	6.5	6.1	6.1	6.0	6.0	na
June 2001	5.7	6.1	5.9	6.0	6.0	
September 2001	2.1	2.9	2.8	2.3	2.5	
December 2001	2.1	3.8	3.0	3.4	3.1	
March 2002	1.9	3.5	2.5	3.4	2.9	na
June 2002	2.2	3.2	2.3	3.3	2.8	
September 2002	3.1	3.5	3.0	3.8	3.2	
December 2002	3.2	3.0	2.9	3.3	3.0	
March 2003	3.7	3.6	3.6	3.5	3.4	na
June 2003	3.0	2.8	2.8	2.7	2.7	
September 2003	2.6	2.5	2.5	2.4	2.6	
December 2003	2.5	2.4	2.3	2.3	2.4	
March 2004	2.5	1.9	2.0	1.7	2.0	
June 2004	3.3	2.4	2.6	2.2	2.5	

(a) Base of each index: June quarter 1998 = 100.0.

(b) As published, base 1989-90 = 100.0.

(c) CPI re-referenced to base of June quarter 1998 = 100.0 to facilitate longer-term comparisons with living cost indexes.

Over the four quarters from June 2003 to June 2004, changes in living costs ranged from a low of 2.2% (Self-funded retiree households) to a high of 3.3% (Employee households). The CPI rose by 2.5% over the same period. The change in living costs by household type for the most recent four quarters compares with those in the previous year (to June 2003) when Self-funded retirees also experienced the lowest increase (2.7%) and Employee households experienced the highest increase (3.0%).

Over the six-year period covered by the indexes, Self-funded retirees experienced the lowest increase in living costs of 18.6% and Age pensioner households the highest increase of 20.0%. These outcomes compare with the increase in the CPI over the period of 19.7%.

Changes over the last 12 months in the price indexes at the equivalent of the CPI commodity

group level are presented in Table 4 along with corresponding data for the CPI. Differences in the price experiences of household types at the group level reflect differences in expenditure weights at the lower levels, differences in weights at the state level and differences in prices faced by some household types. Some of these impacts are discussed below.

TABLE 4: CHANGE IN LIVING COST INDEXES BY COMMODITY GROUP JUNE QUARTER 2003 TO JUNE QUARTER 2004

Commodity group	Household type				CPI
	Employee	Age pensioner	Other government transfer recipient	Self-funded retiree	
PERCENTAGE CHANGE					
Food	2.3	2.0	1.8	2.4	2.3
Alcohol and tobacco	4.6	4.9	4.6	4.2	4.4
Clothing and footwear	-0.9	-0.8	-1.0	-0.9	-0.9
Housing(a)	3.1	3.0	2.7	3.4	4.0
Household furnishings, supplies and services	-0.7	0.0	-0.6	0.0	-0.6
Health	6.6	6.3	5.4	7.0	6.6
Transportation	3.4	4.2	5.1	3.2	3.4
Communication	2.0	1.0	0.7	1.8	1.4
Recreation	-1.6	-0.6	-2.1	-0.9	-1.7
Education	7.8	7.9	7.7	8.1	7.8
Miscellaneous(b)	9.9	2.4	6.6	2.0	2.7
Total	3.3	2.4	2.6	2.2	2.5

(a) House purchases are included in the CPI but excluded from the population subgroup indexes.

(b) Includes interest charges and general insurance. Interest charges are excluded from the CPI and general insurance is calculated on a different basis.

At the group level the most noticeable difference in price movements by household type was recorded for Miscellaneous. This commodity group includes interest charges, insurance and child care. Increases in interest charges on home loans (reflecting both rising house prices and increasing mortgage interest rates) in conjunction with the greater weight interest charges have in the expenditures of Employee households, resulted in a rise of 9.9% in the index for Miscellaneous for these households. Also, child care costs rose strongly in this period. On the other hand, as Age pensioners and Self-funded retirees generally have little expenditure on interest charges and child care, they experienced more moderate overall increases in prices for this commodity group.

For most other commodity groups the differences in prices movements are small. However, several observations are warranted. The lower increase in the Housing index for Other government transfer recipient households largely reflects their higher relative expenditure on rents. Rents increased at a lower rate than prices of other commodities in this group such as property rates, electricity and gas (noting that house purchase is not included in the living cost indexes).

The nil movement in the Household furnishings, supplies and services index for Age pensioner and Self-funded retiree households is due to their higher relative expenditure on household services, which increased in price and offset falls in prices for furniture and household appliances. The higher increase in the Health index for Self-funded retiree households reflects, in

part, their high level of health insurance coverage, for which fund membership fees increased by around 8% on average through the year.

The increase in the Transportation index for Other government transfer recipient households reflects higher relative expenditure on automotive fuel (which increased by around 12% on average through the year) and less relative expenditure on new motor vehicles (which decreased by around 3% on average through the year) when compared with the other household groups. The smaller decrease in the Recreation index for Age pensioner and Self-funded retiree households is due to their lower relative expenditure on audio, visual and computing equipment, which decreased over the year and higher relative expenditure on domestic holiday travel and accommodation, which increased over the year, when compared with Employee and Other government transfer recipient households.

CONCLUSIONS

These analytical indexes have been designed specifically to answer the question: 'By how much would after tax money incomes need to change to allow households to purchase the same quantity of consumer goods and services that they purchased in the base period?'

The key issues these indexes can address is whether price changes result in different household types experiencing significantly different changes in their aggregate living costs and whether the CPI is an adequate proxy for changes in these living costs.

In the previous studies it was concluded that changes in living costs had been broadly similar across the selected household types. The extension of the analysis to June 2004 is generally consistent with those earlier conclusions, although perceptions as to what are significant differences may vary between analysts. Further, it could be argued that the CPI provides a reasonable estimate of changes in living costs for each of the selected household types over this period.

These indexes have been constructed to reflect the experiences of population groups as a whole, and not the experiences of any individual household. In this regard it is particularly important to note that the indexes do not reflect the changes in living costs experienced by households as a direct consequence of their moving through the life cycle (e.g. as a result of family formation and ageing). Furthermore, these indexes have been designed to provide a general measure of changes in living costs for each of the population subgroups; they do not measure changes in the relative standard of living of different population subgroups.

FURTHER INFORMATION

For more information about analytical living cost indexes, contact Steve Whennan on (02) 6252 6251 or email <steve.whennan@abs.gov.au>.

ENDNOTES

1 'Analytical Living Cost Indexes for Selected Australian Household Types', *Australian Economic Indicators*, June 2001 (cat. no. 1350.0), 'Analytical Living Cost indexes for Selected Australian Household Types: An Update', *Australian Economic Indicators*, December 2002 and October 2003 (cat. no. 1350.0).

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